

REMARKS AND ARGUMENTS

Claim Objections

The Examiner's suggestions have been observed. The abbreviation "PCM", standing for phase change material, has been established in claim 1.

Claim Rejections - 35 USC § 112

The Examiner has rejected claims 13 and 14 under 35 U.S.C. § 112, second paragraph. Applicant has amended claim 13 to correct a typographical error. The phrase that formerly read "said hydrogen filter" now reads "a hydrogen filter." Thus, there is no longer a need for an antecedent basis. Claim 14 was rejected as depending from rejected claim 13.

Applicant respectfully requests the withdrawal of the rejection of claims 13 and 14 on the above grounds.

Claim Rejections - 35 USC § 102

The Examiner has rejected claims 1-3, 5, 8-9, 11, 15-17, 19-25, 27-31 and 33-41 under 35 U.S.C. 102(b) as being anticipated by Gudmundsson et al. (US 2001/0033961) (hereafter "Gudmundsson"). Although Applicants disagree with the Examiner's analysis of the prior art, some of the claims have been amended to more fully describe the subject matter therein and to expedite prosecution of the case.

The Examiner states that Gudmundsson teaches all of the limitations of claim 1. Applicants' amended claim 1 requires "a first phase change material (PCM) disposed

outside said enclosure in compartments and covering at least some of said plurality of inner walls[.]” (See Application: FIG. 4). The PCM material is described in the specification and shown in the illustrations as being disposed outside the enclosure that is formed by the inner walls. This arrangement has several advantages over the arrangement disclosed in Gudmundsson. For example, in the arrangement required by Applicants’ claim 1, the PCM acts as an insulator that can surround the enclosure shielding the enclosure from changes in temperature outside the enclosure. This structure allows for objects, for example batteries, to be disposed within the enclosure, thus shielding the objects from temperature changes as well. Gudmundsson instead teaches a structure wherein the PCM 7 is disposed inside the container 5. (See Gudmundsson: FIG. 1).

Gudmundsson does not teach all of the limitations of Applicants’ amended claim 1 and the claim is otherwise allowable.

Claims 2, 3, 5, 8, 9 and 11 all depend from allowable claim 1 and as such are also allowable.

The Examiner states that Gudmundsson teaches all of the limitations of claim 15. Applicants’ amended claim 15 requires “first and second substantially vertical supports” and “a phase change material disposed between and contacting said first and second supports.” FIG. 4 of the Application illustrates an example of the required structure. Gudmundsson does not teach, suggest or disclose either of these limitations. The Examiner characterizes various elements within the insulating cabinet taught by Gudmundsson as “supports” when at least one of these elements appears to support nothing. A more

reasonable characterization of these elements would be as surfaces used to define various enclosures.

Even if we accept the Examiner's characterization of these elements, *arguendo*, Gudmundsson does not teach the structure required by claim 15. Claim 15 requires vertical supports; the surfaces taught by Gudmundsson are disposed horizontally. Lastly, claim 15 requires that the phase change material be sandwiched between the first and second vertical supports. Gudmundsson shows the phase changing material 7 to be completely housed by a container 5. (See Gudmundsson: FIG. 1). The phase change material does not contact both supports. One of the advantages of Applicants' structure is that by disposing the phase change material between the two supports such that the material contacts those supports, heat transfer between the supports is more efficiently inhibited.

Thus, Gudmundsson does not teach, suggest or disclose all of the limitations of Applicants' amended claim 15 and the claim is otherwise allowable.

Claims 16, 17 and 19-23 depend from allowable claim 15 and as such are also allowable. Applicants note that claims 16-23 have been amended to correct a recurring typographical error.

The Examiner states that Gudmundsson teaches all of the limitations of independent claim 24. Although Applicants disagree with the Examiner's analysis of the prior art, claim 24 has been amended to more fully describe the subject matter therein.

Gudmundsson does not teach, suggest or disclose all of the limitations of Applicants' claim 24. The claim, as amended, requires "a phase-change material disposed outside said component cavity and substantially covering at least one of said plurality of walls." In the Office

Action, the Examiner cites states that Gudmundsson teaches an electrical component cavity in FIG.1 comprising elements referenced as 8a, 8b and 5. First, Applicants submit that it is impossible for a cavity to comprise physical elements. Claim 24 requires a plurality of walls that establish or define a cavity. Applicants submit that the Examiner's interpretation of the prior art is flawed in this regard. Second, claim 24 requires that the phase change material is disposed outside the component cavity. Gudmundsson teaches a phase change material which is enclosed in a container 5. Thus, the phase change material would have to be on the inside of any cavities taught by Gudmundsson.

The Gudmundsson reference does not teach, suggest or disclose all of the limitations of claim 24 and the claim is otherwise allowable.

Claims 25 and 27-29 all depend from allowable claim 24 and as such are also allowable.

The Examiner states that Gudmundsson teaches all of the limitations of Applicants' claim 30. Applicants respectfully disagree with the Examiner's analysis of the prior art. Applicants' claim 30 teaches an electrical enclosure designed to insulate electrical components, for example, from temperature changes outside the enclosure. Claim 30 requires that "the phase change material provides insulation for said electrical components." Applicants' structure as taught in claim 30 is adapted to this end. Gudmundsson teaches a structure that performs a very different function. The Gudmundsson reference in fact teaches a device that *facilitates* heat transfer between objects inside the cavity (i.e. batteries) and the ambient atmosphere outside the cavity. (See Gudmundsson: paragraph [0014]). On the other hand, the

electrical enclosure taught by claim 30 *inhibits* the transfer of heat from the ambient atmosphere to objects inside the component cavity. Gudmundsson does not teach a structure that provides insulation for the electrical enclosure as required by claim 30.

Gudmundsson does not teach, suggest or disclose all of the limitations of Applicants' claim 30 and the claim is otherwise allowable.

Claims 31 and 33-35 all depend from allowable claim 30 and as such are also allowable.

The Examiner states that the method steps recited in claim 36 are inherently necessitated by the device structure as taught by Gudmundsson. Applicants respectfully disagree with the Examiner's analysis of the prior art. Claim 36 requires that "the phase change material provides insulation for said electrical enclosure from heat energy." Similarly as discussed above the device taught in Gudmundsson achieves the exact opposite effect. Gudmundsson uses phase change material as a means to conduct heat away from batteries as their temperature rises. The Applicants' method of claim 36 is designed to insulate components inside the electrical enclosure from changes in the ambient temperature outside the enclosure. Thus, the method of insulating an electrical enclosure is not inherently anticipated by the device of Gudmundsson as suggested by the Examiner.

Gudmundsson does not teach, suggest or disclose all of the limitations of Applicants' claim 36 and the claim is otherwise allowable.

Claims 37 and 38 depend from allowable claim 36 and as such are also allowable.

The Examiner states that Gudmundsson anticipates all of the limitations of Applicants' claim 39. The

Applicants respectfully disagree with the Examiner's analysis of the prior art. Claim 39 requires "a fan [that] reduces thermal energy introduced to said phase-change panel by said exterior wall." The fan taught by Applicants helps to achieve the design goal of insulating the electrical enclosure from the outside atmosphere by circulating the air surrounding the phase change material outside the phase change panel. Gudmundsson instead teaches a fan disposed beneath the container 5 designed to carry heat generated inside the container to the outside atmosphere through outlet 13. (See Gudmundsson: FIG. 1). The fan of Gudmundsson is designed to carry heat from the interior of the container 3 to the outside atmosphere, whereas the fan of Applicants' claim 39 is designed to prevent heat exchange between the outside atmosphere and the interior of the electrical enclosure.

Thus, Gudmundsson does not teach all of the limitations of Applicants' claim 39 and the claim is otherwise allowable.

Claims 40 and 41 both depend from allowable claim 39 and as such are also allowable.

For at least the reasons stated above, Applicants respectfully request the withdrawal of the rejections of claims 1-3, 5, 8, 9, 11, 15-17, 19-25, 27-31 and 33-41.

Claim Rejections - 35 USC § 103

The Examiner has rejected claims 6, 7, 10, 12, 13, 18, 26 and 32 under 35 U.S.C. 103(a) as being unpatentable over Gudmundsson in combination with several other cited references.

Applicants respectfully note that all of the above referenced claims depend from allowable independent

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claims as discussed above. As such all of these dependent claims are also allowable for at least the same reasons with regard to their respective independent claims.

For at least the reasons stated above, Applicants respectfully request the withdrawal of the rejections of claims 6, 7, 10, 12, 13, 18, 26 and 32.

Allowable Subject Matter

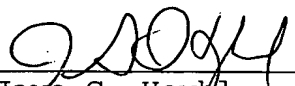
The Applicant notes with appreciation the Examiner's comments concerning existing allowable subject matter in claims 4 and 14. These claims have been amended in independent form as suggested by the examiner and are now in a condition for allowance.

CONCLUSION

Applicant submits that claims 1-41 are in condition for allowance, and applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Jaye G. Heybl
Attorney for Applicants
Registration No. 42,661

Koppel, Jacobs, Patrick, & Heybl
555 St. Charles Drive, Suite 107
Thousand Oaks, CA 91360
Phone 805 373 0060,
Fax 805 373 0051